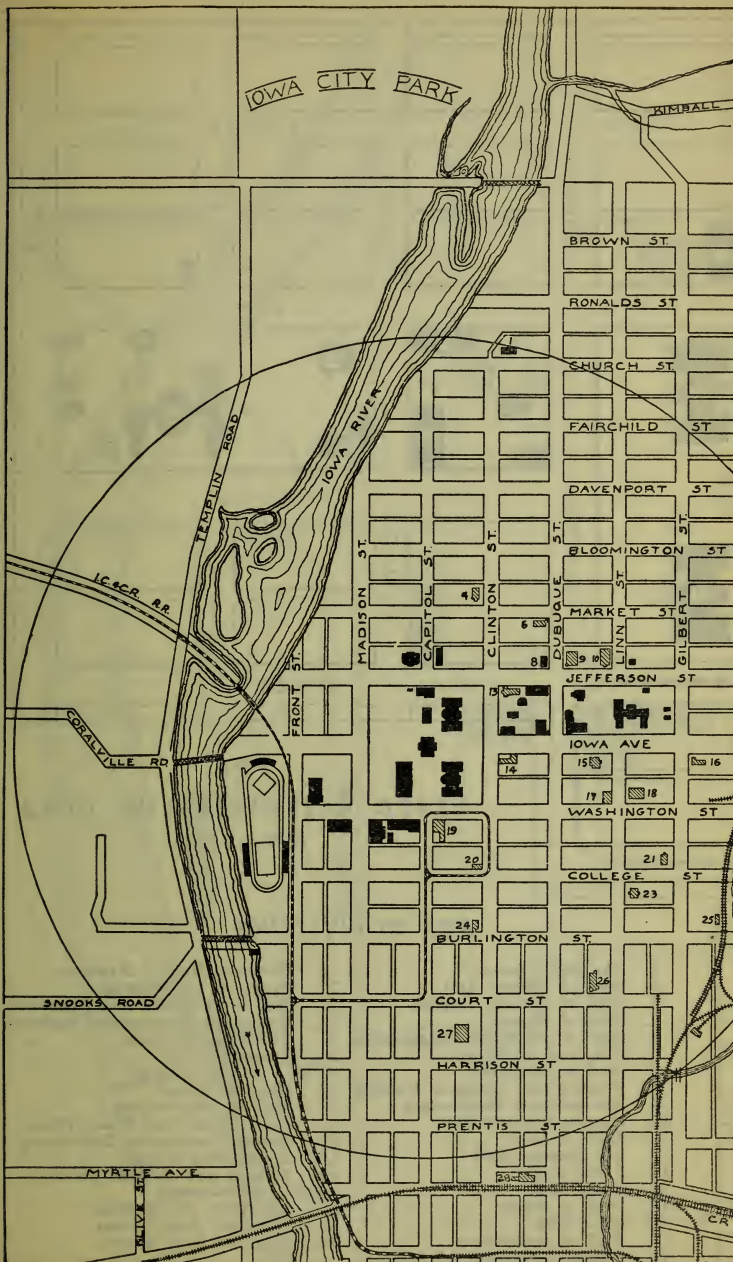


LIBRARY
OF THE
UNIVERSITY OF IOWA

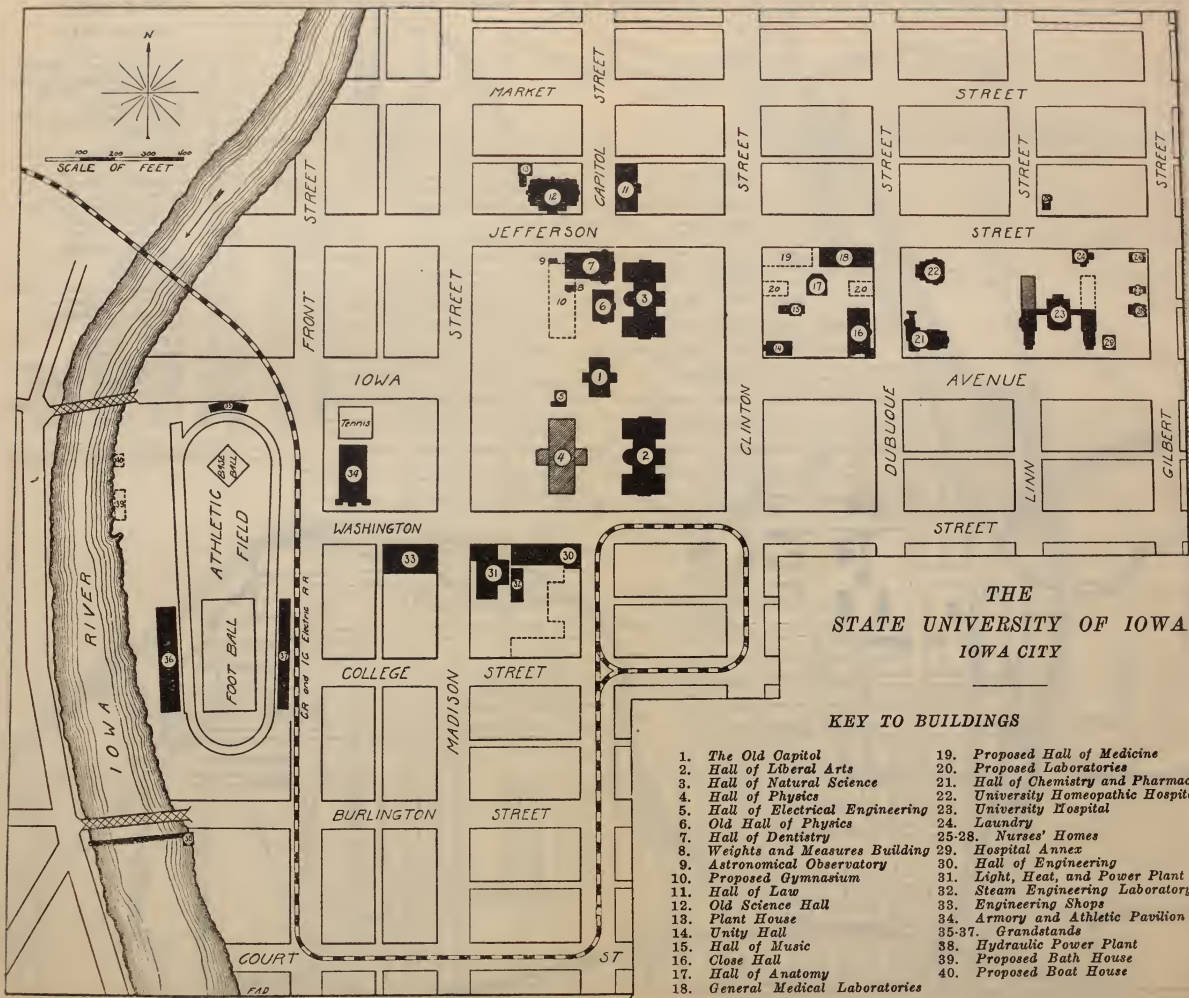
THE
STATE UNIVERSITY OF IOWA
IOWA CITY



ANNOUNCEMENT OF THE
COLLEGE OF PHARMACY
1910-1911



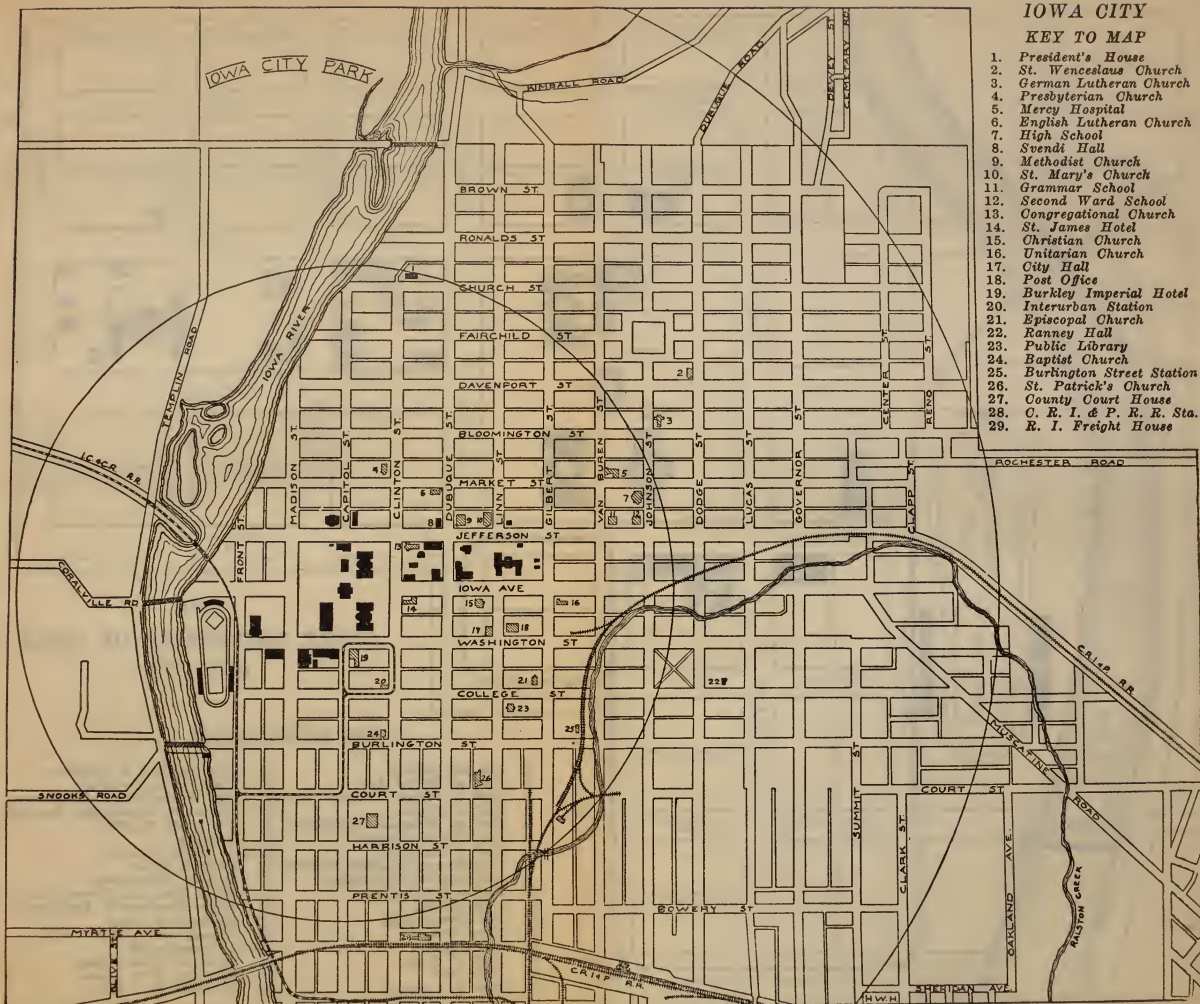
Circles are half mile and mile from Old Capitol



IOWA CITY

KEY TO MAP

1. President's House
2. St. Wenceslaus Church
3. German Lutheran Church
4. Presbyterian Church
5. Mercy Hospital
6. English Lutheran Church
7. High School
8. Svendi Hall
9. Methodist Church
10. St. Mary's Church
11. Grammar School
12. Second Ward School
13. Congregational Church
14. St. James Hotel
15. Christian Church
16. Unitarian Church
17. City Hall
18. Post Office
19. Burkley Imperial Hotel
20. Interurban Station
21. Episcopal Church
22. Ranney Hall
23. Public Library
24. Baptist Church
25. Burlington Street Station
26. St. Patrick's Church
27. County Court House
28. C. & N. W. P. & R. Sta.
29. R. I. Freight House



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THE
STATE UNIVERSITY OF IOWA
IOWA CITY



ANNOUNCEMENT OF THE
COLLEGE OF PHARMACY
1910—1911

PUBLISHED BY THE UNIVERSITY
IOWA CITY IOWA

1910

1910							1911						
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1911

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THE UNIVERSITY CALENDAR

1910-1911

1910

<i>June 15, Wednesday</i>	Commencement, all colleges, 9:00 A. M. Alumni dinner, 12:00 M. President's reception, 4:00 P. M.
<i>June 16, 17, Thursday, Friday</i>	Examination for admission to all colleges.
<i>June 18, Saturday</i>	Registration, Summer Session, 9:00 A. M.
<i>June 20, Monday</i>	Instruction begins in the Summer Session, 7:00 A. M.
<i>July 4, Monday</i>	Independence day; exercises suspended.
<i>July 28, 29, Thursday, Friday</i>	Examination by the State Board of Educational Examiners.
<i>July 30, Saturday</i>	Summer Session ends.

Summer Vacation

<i>Sept. 15, Thursday</i>	Examination for admission. *Registration, all colleges.
<i>Sept. 19, Monday</i>	Instruction begins, all colleges, 8:00 A. M.
<i>Sept. 21, Wednesday</i>	University convocation; address by the President, 10:00 A. M.
<i>Nov. 19, Saturday</i>	First quarter ends, 10:00 P. M.
<i>Nov. 21, Monday</i>	Second quarter begins, 8:00 A. M.
<i>Nov. 24, Thursday</i>	Thanksgiving day; exercises suspended.
<i>Dec. 22, Thursday</i>	Holiday recess begins, 10:00 P. M.

Holiday Recess

1911

<i>Jan. 3, Tuesday</i>	Work resumed, all colleges, 8:00 A. M.
<i>Feb. 4, Saturday</i>	First semester ends, 10:00 P. M.
<i>Feb. 6, Monday</i>	Second semester begins, 8:00 A. M.
<i>Feb. 12, Sunday</i>	Lincoln's Birthday.
<i>Feb. 20, Saturday</i>	Annual lecture of Sigma Xi, 8:00 P. M.
<i>Feb. 22, Wednesday</i>	Washington's Birthday. University convocation. All other exercises suspended.
<i>April 11, Tuesday</i>	Third quarter ends, 10:00 P. M.

*Students may register by mail or in person at any time during the summer vacation.

Spring Recess

<i>April 19, Wednesday</i>	Fourth quarter begins, 8:00 A. M.
<i>May 30, Tuesday</i>	Memorial day; exercises suspended.
<i>June 9, Friday</i>	Battalion drill and dress parade, 4 P. M. Anniversary exercises, forensic societies.
<i>June 10, Saturday</i>	Reading of Theses, College of Applied Science, 9:00 A. M.
<i>June 11, Sunday</i>	Baccalaureate address, 4:00 P. M.
<i>June 12, Monday</i>	Class day exercises. Reading of Theses, College of Applied Science, 9:00 A. M.
<i>June 13, Tuesday</i>	Class play, 8:00 P. M. Alumni day; business meeting, 2:00 P. M. Phi Beta Kappa address, 8:00 P. M.
<i>June 14, Wednesday</i>	Commencement, all colleges, 9:00 A. M. Alumni dinner, 12:00 M. President's reception, 4:00 P. M.
<i>June 15, 16, Thursday, Friday</i>	Examination for admission to all colleges.
<i>June 17, Saturday</i>	Registration, Summer Session, 9:00 A. M.
<i>June 19, Monday</i>	Instruction begins in the Summer Session, 7:00 A. M.
<i>July 4, Tuesday</i>	Independence day; exercises suspended.
<i>July 27, 28, Thursday, Friday</i>	Examination by the State Board of Educational Examiners.
<i>July 29, Saturday</i>	Summer Session ends.

Summer Vacation

<i>Sept. 14, Thursday</i>	Examination for admission. *Registration in all colleges.
<i>Sept. 18, Monday</i>	Instruction begins, all colleges, 8:00 A. M.
<i>Sept. 20, Wednesday</i>	University convocation; address by the President, 10:00 A. M.
<i>Nov. 18, Saturday</i>	First quarter ends, 10:00 P. M.
<i>Nov. 20, Monday</i>	Second quarter begins, 8:00 A. M.
<i>Nov. 30, Thursday</i>	Thanksgiving day; exercises suspended.
<i>Dec. 21, Thursday</i>	Holiday recess begins.

*Students may register by mail or in person at any time during the summer vacation.

THE UNIVERSITY

THE STATE UNIVERSITY OF IOWA embraces the following
Colleges and Schools:

THE GRADUATE COLLEGE

THE COLLEGE OF LIBERAL ARTS, including

THE SCHOOL OF POLITICAL AND SOCIAL SCIENCE AND
COMMERCE

THE SCHOOL OF EDUCATION

THE SUMMER SESSION, including

THE SUMMER SCHOOL OF LIBRARY TRAINING

THE LAKESIDE LABORATORY AT OKOBOJI

THE COLLEGE OF APPLIED SCIENCE

THE COLLEGE OF LAW

THE COLLEGE OF MEDICINE, including

THE SCHOOL FOR NURSES

THE COLLEGE OF HOMEOPATHIC MEDICINE, incl.

THE SCHOOL FOR NURSES

THE COLLEGE OF DENTISTRY

THE COLLEGE OF PHARMACY

THE SCHOOL OF MUSIC (affiliated)

The special announcement of any College or School of the University, giving full information in regard to entrance requirements, expenses, courses of study, etc., is supplied, free of charge, to any one who desires it. The annual calendar, containing a description of all the Colleges and Schools, together with other records, etc., and the illustrated bulletin of the University, will also be sent on request.

Address:

THE REGISTRAR,
Iowa City, Iowa.

ADMINISTRATIVE OFFICERS

The State University of Iowa, together with the Iowa State College of Agriculture and Mechanic Arts and the Iowa State Teachers College, is under the administration of the State Board of Education, consisting of nine members, and the Finance Committee, consisting of three members appointed by the Board.

BOARD OF EDUCATION

JAMES H. TREWIN, *Cedar Rapids*, President

GEORGE T. BAKER, *Davenport*

CHARLES R. BRENTON, *Dallas Center*

T. D. FOSTER, *Ottumwa*

A. B. FUNK, *Spirit Lake*

PARKER K. HOLBROOK, *Onawa*

ROGER LEAVITT, *Cedar Falls*

D. D. MURPHY, *Elkader*

EDWIN P. SCHOENTGEN, *Council Bluffs*

FINANCE COMMITTEE

WILLIAM R. BOYD, *Cedar Rapids*, President

DANIEL A. EMERY, *Ottumwa*

THOMAS LAMBERT, *Sabula*

ADMINISTRATIVE OFFICERS OF THE UNIVERSITY

GEORGE E. MACLEAN, PH. D., LL. D., President

WILLIAM J. MCCHESENEY, Secretary

EDWARD C. BARRETT, B. A., Registrar

HERBERT C. DORCAS, M. A., University Examiner

LOVELL SWISHER, Treasurer

GILBERT H. ELLSWORTH, Superintendent of Grounds and
Buildings

THE COLLEGE OF PHARMACY

OFFICERS OF INSTRUCTION AND ADMINISTRATION

GEORGE EDWIN MACLEAN, PH. D., LL. D., PRESIDENT.

WILBER JOHN TEETERS, M. S. PH. C., DEAN; Professor of Pharmacy and Pharmacognosy, and Director of the Pharmaceutical Laboratory.

Professors

EMIL LOUIS BOERNER, PH. G., PHAR. D., Professor Emeritus of Practical Pharmacy.

ELBERT WILLIAM ROCKWOOD, PH. D., M. D., Professor and Head of the Department of Chemistry and Toxicology.

CHARLES SUMNER CHASE, B. S., M. A., M. D., Professor of Materia Medica and Therapeutics.

BOHUMIL SHIMEK, C. E., M. S., Professor of Botany in the College of Pharmacy, and Curator of the Herbarium.

ROBERT BRADFORD WYLIE, PH. D., Professor of Morphological Botany.

Assistant Professors

WILLIAM JAY KARSLAKE, PH. D., Assistant Professor of Chemistry.

JAMES NEWTON PEARCE, PH. D., Assistant Professor of Chemistry.

CLARENCE WYCLIFFE WASSAM, PH. D., Assistant Professor of Political Economy and Sociology.

Instructors

EDWARD X. ANDERSON, M. S., Instructor in Chemistry.

ZADA MARY COOPER, PH. G., Instructor in Pharmacy.

CLARENCE ESTES, B. S., CH. E., Instructor in Chemistry.

RUDOLPH ANDREW KUEVER, Instructor in Pharmacy.

CARL FERDINAND NELSON, B. A., Instructor in Chemistry.

RALPH OTTO, B. A., LL. B., Instructor in Law.

SAMUEL HORATIO GOODYEAR, A. B., Lecturer on Accountancy.

HAROLD ANDAS KNIGHT, Storekeeper in Chemistry.

GENERAL INFORMATION

ORGANIZATION

The College of Pharmacy was organized in 1885. It offers a broad and thorough practical course in the various subjects pertaining to pharmacy, in order to satisfy the necessity for technical training in this subject for those who are seeking to prepare themselves as prescriptionists, manufacturing pharmacists, or drug inspectors and food analysts. The aim of the College, as the state institution, is to coöperate with the pharmacists of the state in their efforts to maintain and elevate the standard of the profession. Personal interest and instruction is a feature of the College. The students have all the privileges and share the spirit of a great educational institution.

BUILDINGS

The Hall of Pharmacy and Chemistry

This is a three-story brick building, erected at a cost of about fifty thousand dollars, and furnishing about twenty-five thousand square feet of floor space. The lecture rooms are provided with all desirable conveniences for class demonstration. The chemical and pharmaceutical laboratories each occupy a floor space of 54 by 140 feet, divided into a general laboratory and smaller rooms for special research. The equipment is of modern type, and is being enlarged constantly through liberal appropriations.

Old Science Hall

This building is devoted to the departments of botany and geology. The botanical laboratories are equipped with heavy oak, slate-topped tables, and adequate provision for microscopes, photomicrographic camera, stereopticon, etc. has been made for both elementary and advanced study.

PHARMACEUTICAL MUSEUM

The pharmaceutical museum contains a collection of materials illustrative of the history and progress of pharmacy. It

contains old prescriptions, apparatus, and books, as well as ceroons in which such drugs as cinchona, sarsaparilla, aloes, and olive oil were formerly shipped.

DRUG ROOM

The Prescription and Drug Room of the University Hospital is under the direct charge of the dean of the College of Pharmacy, and the members of the senior class, being divided into sections of twos, are given practical work in dispensing under personal supervision.

LIBRARIES

Reading and reference libraries are maintained in connection with the chemical, botanical, and pharmaceutical laboratories. In the latter, the leading current drug journals are kept on file.

Students of the College have access also to the large collections in the general University library, and the public library of Iowa City, amounting in all to about 135,000 volumes.

WEIGHTS AND MEASURES

The state's standards of weights and measures are kept in the University under the supervision of the head of the Department of Mathematics and Astronomy.

INSTRUCTION IN THE COLLEGE OF LIBERAL ARTS

Students of pharmacy who desire to take work in the College of Liberal Arts in addition to their work in the College of Pharmacy are allowed to take not exceeding five hours a week so long as they maintain a good standing in their pharmaceutical studies and do satisfactorily the work of the College of Liberal Arts. No additional tuition charges are made for such instruction.

ADMISSION TO PRACTICE

The Thirty-first General Assembly of the state passed a bill which modified the law in regard to examination for registration as follows:

“Section 3. No person shall be eligible to take this ex-

amination until he has passed his twenty-first birthday and has presented to the commission his own affidavit and that of his employer or employers, affirming that he has had not less than four years' practical experience (including the actual number of weeks he has spent in a *reputable* college of pharmacy as hereinafter defined) as clerk under the supervision of a registered pharmacist in a drug store or pharmacy in which physicians' prescriptions are compounded. Provided, however, that graduates of *reputable* pharmaceutical schools and colleges whose entrance and graduation requirements are equivalent to those prescribed by the American Conference of Pharmaceutical Faculties, and whose course of study consists of two years of not less than thirty-six (36) weeks each, shall be eligible to take the examination without proof of experience as hereinbefore defined."

AMERICAN PHARMACEUTICAL ASSOCIATION

The College of Pharmacy holds membership in the Conference of Pharmaceutical Faculties of The American Pharmaceutical Association, and its graduates are permitted to take the examination of the state board without other experience than that obtained in the two years of college work.

SECURING POSITIONS

The members of the faculty of the University will do all in their power to aid students to secure good positions. In the past it has been impossible to fill all the requests for thoroughly qualified graduates.

EXPENSES AND PRIZES

TUITION

MATRICULATION—Every student upon entering any department of the University (except students in the School of Music and students of the Summer Session who are not candidates for a degree), is required to pay a matriculation fee of \$10.00. This fee is paid but once.

TUITION—The tuition fee in this college is \$25.00 a semester, payable in advance. The tuition fee for a student taking half work or less is \$15.00 a semester. Tuition fees will not be refunded.

For all honorably discharged soldiers or sailors of the Spanish-American war, who are taking a full course in this College, half of the annual tuition fee is remitted.

GRADUATION FEE—The fee for graduation is \$10.00.

OTHER CHARGES—For each special examination given at a time other than those regularly scheduled by the faculty, a fee of \$1.00 is charged; for several examinations given at one time the fee is \$2.00.

A deposit of \$3.00, to cover breakage and loss, is required of each student taking laboratory courses in chemistry and practical pharmacy. This sum, after necessary deductions, is returned to the student.

The charge for rental of a locker in the gymnasium (if desired) is fifty cents a semester; each student furnishes his own lock and key for his locker.

A fee of twenty-five cents a day is charged all but new students for delay in registering beyond the limit officially announced.

Seats will be assigned by classes in the order of registration at the University.

OTHER EXPENSES

Board can be secured in Iowa City at \$2.75 or \$3.00 a week and upwards; rooms, at \$4.00 a month and upwards (for each student, with two in a room). The average rate for board

is probably about \$3.00 a week; for room, about \$6.00 a month. Books will cost from \$10.00 to \$20.00 a year. Other expenses vary greatly with the means and habits of the individual.

SELF SUPPORT

Students who find it necessary to earn part of their way through college can usually find work, as Iowa City, with its ten thousand inhabitants, furnishes many opportunities for employment. Students are not advised, however, to attempt too much outside work, as the course in pharmacy is planned to occupy the student's entire time.

PRIZES

LINDLY PRIZE: Mr. John M. Lindly of Winfield, Iowa, offers a prize consisting of Britton and Brown's *Illustrated Flora* to the student of the senior class who shall bring from his home county the best herbarium of not less than fifty plants. The candidate before receiving the prize must become a member of the University Pharmacy Alumni Association, and the collection shall become the property of Mr. Lindly.

ALUMNI ASSOCIATION PRIZE: The Alumni Association of the College extends a free membership to the member of the graduating class attaining the highest general average in all branches of study. This was awarded in 1909 to J. E. Booge, with honorable mention of Philip Sipfle and S. A. Bergren.

MEMBERSHIP IN A. PH. A. PRIZE: Membership in the American Pharmaceutical Association is offered by Dean Wilber J. Teeters to the member of the senior class who in competitive examination is rated highest in recognition and description of organic drugs. This was awarded in 1909 to M. F. Coontz, with honorable mention of O. L. Roth.

NATIONAL DISPENSATORY PRIZE: A National Dispensatory is offered by Miss Cooper and Mr. Kuever to the member of the senior class who presents the best paper before the Alumni Association. This was awarded in 1909 to George O. Caldwell.

ADMISSION, DEGREES, CURRICULUM

REQUIREMENTS FOR ADMISSION

Each applicant for admission must present to the faculty a satisfactory certificate of good moral character.

Students who, upon presentation of a certificate signed by the superintendent or principal of the school from which they come, showing that they have completed the equivalent of at least two years of high school work or sixteen preparatory credits from an accredited high school or other secondary school whose courses of study are approved by the University will be admitted without examination.

All other applicants may be admitted only upon passing examinations in enough subjects approved by the University examiner to yield a total of sixteen preparatory credits.

Students who present satisfactory evidence of having passed the junior examination in another recognised college or school of pharmacy will be admitted without examinations into the senior class, provided that they present also the required certificates showing that they have at least sixteen preparatory credits.

Students who enter the Practitioner's Course must meet the requirements of the American Conference of Pharmaceutical Faculties, which are as follows: Commencing with the season of 1908-1909, satisfactory completion of at least one year of work in an accredited high school, or its equivalent, shall be demanded, provided, however, that said requirements shall not apply to matriculants who are legal residents of the states of Alabama, Arkansas, Indian Territory, Louisiana, Mississippi, Texas, Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, Wyoming, and Missouri.

Any one who expects to enter the College of Pharmacy next September is urged to send all certificates of preparatory work to the University examiner as early in the summer as possible, and certainly before September 1. If the credentials

are satisfactory a card of admission will be sent to the applicant at once.

Notice is hereby given that the requirements for admission are to be extended in subsequent years.

ADMISSION WITHOUT EXAMINATION

Students of mature age may enter without formal examination upon such studies as they may be prepared to pursue, with the understanding that before they may become candidates for degrees, they shall have satisfied all entrance requirements.

DEGREES

Every person upon whom the diploma of this College is conferred must be of good moral character, and must have attended two full courses of lectures, including two full courses of pharmaceutical, microscopical, and chemical laboratory practice, the last one of which shall have been completed in this College.

The degree of Graduate in Pharmacy (Ph. G.) will be granted upon fulfillment of above conditions.

The degree of Pharmaceutical Chemist (Ph. C.) will be granted upon fulfillment of the above conditions, together with the work outlined by the faculty for the third year.

PRACTITIONER'S COURSE

A Practitioner's Course consisting of the regular work of the first and second years, is given for those not able to meet the entrance requirements for the courses leading to a degree. A certificate is granted upon its completion. The requirements for this course are the same as those of the American Conference of Pharmaceutical Faculties.

PHARMACEUTICAL GRADUATE COURSE

The two-years course provides a foundation for the successful practice of pharmacy and the fundamental work in organic and analytical chemistry required for various manufacturing pursuits.

PHARMACEUTICAL CHEMIST COURSE

A three-years course is designed to meet the demands of those who wish to prepare for superior service, particularly for the new positions occasioned by the Pure Food and Drug Law as drug inspectors and analytical and food chemists, and to meet the needs of skilled men in the higher grade of manufacturing. Much freedom in election of subjects is granted in the third year's work.

BACHELOR OF PHARMACY COURSE

The addition in the near future of a four-years course combining an academic and professional course and leading to the degree of Bachelor of Pharmacy is contemplated.

COURSES

The courses of instruction embrace lectures, recitations, and laboratory exercises. The most modern methods of instruction are followed and an unusually large amount of carefully systemized laboratory instruction is given under the direct supervision of the professor in charge. The student in this way not only has an opportunity to apply theory but becomes proficient in the manipulative skill indispensable to the pharmacist.

The work of the third year is partially elective, allowing the student to specialize and fit himself for the various special lines open to manufacturing pharmacists or analytical chemists.

BOTANY

PROFESSOR SHIMEK; PROFESSOR WYLIE

*1. PLANT PHYSIOLOGY AND HISTOLOGY. 2 hrs.

The study of plant structure so far as is necessary for an understanding of the processes which result in the formation of organic products, especially those of professional value to the pharmacist. Junior year. Professor SHIMEK.

2a. SYSTEMATIC BOTANY. 2 hrs.

Types of the principal orders of plants of greatest economic value are studied in detail, and special attention is given to the spring medicinal flora. This course is continued for

**Courses with odd numbers are given in the first semester, those with even numbers in the second semester. Courses with double numbers, e. g., 19 (20), run throughout the entire year, and cannot be dropped after the first semester without permission. In courses with numbers separated by commas, e. g., 23, 24, either semester may be taken independently. The letter a or b following a number indicates the first or second half respectively of the semester.*

NOTE:—LABORATORY AND DRAWING ROOM PERIODS ARE EACH THREE HOURS IN DURATION.

about four weeks in the first semester of the senior year.
Junior year. Professor SHIMEK.

3. MICROSCOPIC TECHNOLOGY. 3 hrs.

The investigation of vegetable structures. Practical instruction is given in the use of the microscope in the identification of crude drugs, as well as in the detection of adulteration. Senior year. Laboratory twice, lecture once, weekly. Professor SHIMEK; Professor WYLIE.

CHEMISTRY

PROFESSOR ROCKWOOD; ASSISTANT PROFESSOR KARSLAKE,
ASSISTANT PROFESSOR PEARCE, MR. NELSON,
MR. ESTES, MR. ANDERSON

*9 (10). INORGANIC CHEMISTRY. 3 hrs.

Lectures and recitations. Must be accompanied by 107 (108). Mr. NELSON.

51 (52). INDUSTRIAL CHEMISTRY. 3 hrs.

Lectures, recitations, and assigned reading on the various processes involved in the sugar, fuel, fermentation, paper, pigment, tanning, and other industries. Prerequisites, general chemistry and qualitative analysis and, for the second semester, general organic chemistry. Mr. ESTES.

107 (108). QUALITATIVE CHEMISTRY. 3 hrs.

A laboratory course. Mr. ANDERSON.

151 (152). QUANTITATIVE ANALYSIS. 1 to 3 hrs.

A laboratory course. Gravimetric and volumetric analyses of pharmaceutical interest. Prerequisite, 191. Assistant Professor KARSLAKE.

160. ULTIMATE ORGANIC ANALYSIS. 1 or 2 hrs.

A laboratory course. Prerequisites, courses 201 (202) or 221 (222), and 203 (204). Assistant Professor KARSLAKE.

161. WATER ANALYSIS. 1 hr.

Laboratory work on the qualitative and quantitative determination of the impurities in natural water. Potability of water and its suitability for domestic and technical purposes.

*See note at the bottom of page 17.

Prerequisites, inorganic chemistry and qualitative analysis.
Mr. ESTES.

164. FOOD ANALYSIS. 2 hrs.

A laboratory course in testing the purity of foods, together with the detection of preservatives, adulterations and substitutes. Prerequisites, as in 161. Professor ROCKWOOD.

165. TOXICOLOGY. 2 hrs.

A laboratory course in which are demonstrated the methods used for the identification and quantitative determination of poisons, as well as the methods of separating them from foods, clothing and various complex mixtures. The post mortem lesions are studied and the means of localization and recovery of poisons from the tissues of the body. Prerequisites, inorganic chemistry and qualitative analysis. Professor ROCKWOOD.

191. QUANTITATIVE ANALYSIS. 1 hr.

A laboratory course. The analysis of substances, solutions, and preparations of U. S. Pharmacopoeial interest. Assistant Professor KARSLAKE.

198. ASSAY OF DRUGS. 1 hr.

A course dealing with the assay, and assay-processes of important U. S. Pharmacopoeial substances and preparations. Assistant Professor KARSLAKE.

201 (202). ORGANIC CHEMISTRY. 3 hrs.

A lecture course with collateral reading and recitations. This course is accompanied by 203 (204). Prerequisites, 14 credit-hours in chemistry. Assistant Professor KARSLAKE.

203 (204). ORGANIC CHEMISTRY. 1 hr.

A laboratory course with conferences and assigned readings. Prerequisite, must be accompanied or preceded by 201 (202) or 221 (222). Assistant Professor KARSLAKE.

205 (206). ORGANIC CHEMISTRY. 3 hrs.

An advanced laboratory course with conferences and assigned readings. Prerequisite, 203 (204), or its equivalent. Assistant Professor KARSLAKE.

221 (222). ORGANIC CHEMISTRY. 3 hrs.

A recitation course with assigned readings, written work, etc. This course is accompanied by 203 (204). Prerequisite, 8 credit-hours in chemistry. Assistant Professor KARSLAKE.

227 (228). PHYSIOLOGICAL CHEMISTRY. 2 hrs.

Lectures and recitations. The study of the constituents of the animal body together with the chemical changes occurring in the vital processes, also the secretions and excretions of the body. Prerequisites, inorganic and organic chemistry. Professor ROCKWOOD.

229 (230). PRACTICAL PHYSIOLOGICAL CHEMISTRY. 1 to 2 hrs.

A laboratory course treating the same subjects as the preceding. Prerequisite, general chemistry; physiology being helpful but not essential. Professor ROCKWOOD; Mr. NELSON.

234. URINARY ANALYSIS. 1 hr.

A laboratory course. Prerequisites, general chemistry and qualitative analysis. Mr. NELSON.

241 (242a). TOXICOLOGY. 1 hr.

Lectures and recitations. The physiological and chemical action of the principal poisons is considered as well as their antidotes. Senior year. Professor ROCKWOOD.

251. THEORETICAL AND ELECTRO-CHEMISTRY. 3 hrs.

A lecture course covering the fundamental principles of chemistry as applied to gases, liquids, and solids; solutions and thermo-chemistry. Prerequisite, course 1 (2). Must be preceded or accompanied by 151 (152). Assistant Professor PEARCE.

253. THEORETICAL AND PHYSICAL CHEMISTRY. 1 to 2 hrs.

A laboratory course covering the determination of molecular weights by vapor-density, freezing-point and boiling-point methods, thermometry, optical measurements, etc. Must be preceded or accompanied by 251. Assistant Professor PEARCE.

257, 258. ELECTRO-CHEMICAL PREPARATIONS. 1 to 3 hrs.

Laboratory work in the preparation of chemical substances both organic and inorganic by electrical methods. Lectures and recitations. Prerequisites, 1 (2) and 203 (204), and the subject of electricity in Physics. Assistant Professor PEARCE.

MATERIA MEDICA AND PHARMACOLOGY

PROFESSOR CHASE

***1. PHARMACEUTICAL LATIN. 4 hrs.**

Intended for students who have previously had little opportunity to study Latin. It is purely elementary and is of value chiefly as related to the new vocabularies with which students must become acquainted. Junior year. Mr. ———.

3. PHYSIOLOGY. 2 hrs.

A brief course in physiology, to give the student in materia medica, an appreciation of its most important function, namely, drug action. Junior year.

4. MATERIA MEDICA. 3 hrs.

This subject is presented to the student chiefly from the standpoint of pharmacodynamics, or drug action. The modes of administration of drugs and their untoward or side-actions are also noticed. Prescription interpretation is fully illustrated and inculcated. Junior year.

5. MATERIA MEDICA. 3 hrs.

This course completes the preceding. Senior year.

6. PHARMACOLOGY. 4 hrs.

A laboratory course for acquiring practical knowledge of the physiological action of drugs. Senior year.

PHARMACY

PROFESSOR TEETERS; MISS COOPER, MR. KUEVER

Theoretical Pharmacy***1 (2). THEORETICAL PHARMACY. 3 hrs.**

A lecture course with collateral reading. Junior year.
Professor TEETERS.

3 (4). THEORETICAL PHARMACY. 3 hrs.

A continuation of 1 (2), including a detailed consideration of inorganic and organic acids and official salts; fixed and volatile oils and fats; alkaloids and glucosides. Senior year.
Professor TEETERS.

*See note at the bottom of page 17.

5 (6). PRACTICAL PHARMACY. 2 hrs.

A laboratory course in which the student is required to make about 150 U. S. Pharmacopoeial and National Formulary preparations, taking them up in progressive order to illustrate the various processes used in pharmacy. Junior year. Professor TEETERS; Miss COOPER; Mr. KUEVER.

7 (8a). PRACTICAL PHARMACY. 2 hrs.

A laboratory course in which about 75 of the more difficult galenicals from the U. S. Pharmacopoeia and National Formulary are made. Senior year. Professor TEETERS; Miss COOPER; Mr. KUEVER.

8b. PRACTICAL PHARMACY. 2 hrs.

This course will have especially in view the practical application of knowledge gained in previous courses and will consist in compounding prescriptions under careful individual instruction. Senior year. Professor TEETERS; Miss COOPER; Mr. KUEVER.

10. RESEARCH WORK. 2 hrs.

Research work in plant analysis and proprietary preparations, new remedies and prescriptions. Third year work Professor TEETERS.

Quiz-Classes

11 (12). QUIZ CLASS. 1 hr.

In connection with course 5 (6) a quiz-class is conducted, covering difficulties likely to be encountered in laboratory work. Junior year. Mr. KUEVER.

13 (14a). QUIZ-CLASS. 1 hr.

In connection with course 7 (8a) a quiz-class is conducted which aims to emphasize all the important points concerning the preparations made in the laboratory. Senior year. Miss COOPER.

Pharmaceutical Arithmetic

15. PHARMACEUTICAL ARITHMETIC. 3 hrs.

This course considers various current weights and measures and the relation of one system to another; also, specific

gravity, proportion, percentage and alligation as applied to pharmaceutical problems. Junior year. Miss COOPER.

Pharmacognosy

16. PHARMACOGNOSY. 2 hrs.

A lecture course in which the commercial history of medicinal plants, means of identification, constituents, and official preparations of organic drugs are studied. Junior year. Professor TEETERS.

17 (18). PHARMACOGNOSY. 2 hrs.

Continuation of 16. Senior year. Professor TEETERS.

ACCOUNTING AND BUSINESS ORGANIZATION

MR. GOODYEAR; ASSISTANT PROFESSOR WASSAM

31 (32). ADVANCED ACCOUNTING AND BUSINESS ORGANIZATION.

2 (3) hrs.

The principles and actual practice of organizing business units in transportation, manufacturing, and distributive industries are studied.

PHARMACY LAW

MR. OTTO

During the second semester of each year a short course of lectures is given which treats of the validity and construction of laws restraining the practice of pharmacy, and of pharmacists' liability, both criminal and civil, for their own violation of laws and for violations on the part of their agents.

SCHEDULE OF STUDIES

Junior Year

Theoretical pharmacy 1 (2)

Practical pharmacy 5 (6), 11 (12)

Chemistry, lectures and recitations, 9 (10)

Chemistry, qualitative analysis 15

Pharmaceutical arithmetic 15

Botany 1, 2

Pharmaceutical Latin 1

Physiology 3

Pharmacognosy 16

Materia medica 4

Senior Year (Ph. G. Course) or Junior Year (Ph. C. Course)

Theoretical pharmacy 3 (4)

Practical pharmacy 7 (8a), 8b, 13 (14a)

Chemistry, organic, 201 (202), or 221 (222), and 203 (204)

Qualitative analysis 191

Drug assay 198

Materia medica and pharmacology 5, 6

Botany 3

Pharmacognosy 17 (18)

Toxicology 241 (242a)

Three Year Course for Degree of Ph. C.

Fifteen hours each semester are demanded of which ten hours at least are either required or elected from chemistry, with the approval of the head of the department. Work to make the required number of hours may be elected from any department of the University with the approval of the dean of the College.

The following include the required subjects and some of the electives:

Research work 10

Advanced accounting and business organization 31 (32)

Industrial chemistry 51 (52)

Ultimate organic analysis 160

Water analysis 161

Food analysis 164

Toxicology 165, 166

Quantitative analysis 151 (152)

Chemistry organic—advanced course 205 (206)

Organic chemistry 225 (226)

Physiological chemistry 227 (228)

Applied physiological chemistry 229 (230)

Urinary analysis 234

Theoretical and electro-chemistry 251

Theoretical and physical chemistry 253

Electro-chemical preparations 257 (258)



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The University embraces eight colleges and five schools. The special announcement of any of these, giving information in regard to entrance requirements, expenses, courses of study, etc., will be sent, free of charge, to any one who desires it. The annual calendar or the illustrated bulletin of information of the University will also be sent upon request.

Address:

THE REGISTRAR,

Iowa City, Iowa.